

METHOD OF CONVERTING NITROGEN DIOXIDE TO NITRIC OXIDE

ABSTRACT OF THE DISCLOSURE

A method of converting nitrogen dioxide to nitric oxide that includes passing a stream of gas containing nitrogen dioxide over a material that includes yttrium-stabilized zirconia. The method may be performed in a device for measuring NO_x that includes a housing having a gas inlet and a gas outlet; a material that includes yttrium-stabilized zirconia positioned inside of the housing; a means for heating the surface of the material that includes yttrium-stabilized zirconia; and a means for measuring the amount of nitric oxide in a stream of gas that has passed over the material comprising yttrium-stabilized zirconia. The device may be used to measure the amount of NO_x in a stream of gas by passing a stream of gas containing nitric oxide through the above-described inventive device.